DIAL-UP DATA

Troubleshooting

General

Most user problems are associated with unfamiliarity or improper use of the Iridium phone or with improper configuration of software applications. Prior to using Dial-Up Data Service:

- Acquaint yourself and become comfortable with the Iridium voice services and the proper operation of the Iridium phone. Prior to attempting any data calls, you should be familiar with the operation of the phone and how to use it to make voice calls.
- Familiarize yourself with the different Iridium data services and products.
- Familiarize yourself with the software applications that you intend to use prior to using them over Iridium (e.g., Internet browser or Dial-Up networking). If possible, try using your applications through your ISP via a landline telephone network first.

Cannot register with the Iridium network

- Is a SIM card inserted into the phone?
- Check to see that the antenna is fully attached, fully extended and vertical, and that there is clear line-of-site to the sky.
- Turn the phone off and then on again and wait for the phone to register.
- For Motorola phones only: If the phone will not register, attempt to force registration by pressing ↑ 8 on the phone's keypad.

Phone is registered, but cannot make a dial-up data connection.

- Verify that the phone is displaying good signal strength.
- The SIM card must be provisioned for data. If in doubt, contact your Iridium Service Provider.
- Check the software version in the phone to verify that it is data-capable:
  - Motorola Phones: Press *#91# on the keypad.
    - ⇒ Motorola 9500 must show software version INC0620 or later.
    - ⇒ Motorola 9505 must show software version LAC109G or later.
    - ⇒ Motorola 9520 must show software version RAC0620 or later.
    - ⇒ **Note**: Newer data-capable versions may be released from time to time, and will be indicated by a higher numerical sequence.
  - EuroCom Iridium Fixed Mount Unit: Press the "MENU" button, scroll down to *System*, press the "**>**" button three times. This will display the transceiver software version.
    - ⇒ The transceiver software version should be 3.xx.xx or later. If it is not, check with your Iridium Service Provider to verify that your phone was upgraded for data capability.
- Check the cable connections.
- Check to see that the dialed phone number is accurate, and that it was dialed in international format (00 + Country Code + Area Code/Phone Number).

  For example, if you are dialing an ISP in Tempe, Arizona, USA, you would enter 00 1 480 555 5555, where 1 is the country code and 480.555.5555 is the ISP's telephone number. You can verify that you are dialing the correct number by dialing the number as a voice call from your Iridium phone. You should hear your ISP's modem tones if dialed properly.

- Verify that your settings have not changed (modem properties, phone number, user name, password, etc.)
- For Motorola phones only: Is your Iridium handset dialing? While dialing, the Iridium handset blinks "Data Call in Progress". If not, cycle the power on the phone to reset it.

I am receiving the following Dial-Up Networking error message: "Error 678: There was no answer"

- Your SIM card may not be provisioned for data. Check with your Iridium Service Provider.

I am using a EuroCom Iridium Fixed Mount Unit, and I am receiving one of the following Dial-Up Networking error messages: "Error 692" or "Error 797"

- Your phone may not have a data-capable internal software version. Press the "MENU" button, scroll down to *System*, press the "**>**" button three times. This will display the transceiver software version. The transceiver software version must be 3.xx.xx or later. If it is not, check with your Iridium Service Provider to have your phone upgraded for data capability.

The data call is connected, but nothing seems to happen.

- There may be a problem with your networking properties or a problem at the remote end. For example, if you are using Dial-Up Networking to connect to a LAN or to an ISP, you should verify that the Networking properties are set in accordance with the requirements of the LAN or ISP. At this point, you should contact you ISP or remote end administrator.

While connected, the handset seems to stop transferring data.

- If this happens, terminate the connection, cycle power on your Iridium phone to reset it, and reinitiate the connection.

Difficulty completing dial-up data calls to some countries

- You may experience difficulty when placing dial-up data calls to some parts of the world, including (but not limited to): The Middle East, Southeast Asia, China, India, Russia and Taiwan.

  The end-to-end data call quality and probability of connection is governed by the ability of modems at the Iridium gateway to synchronize with modems at the termination location. Modem synchronization is directly impacted by voice compression that is used by international telephony carriers. International telephony carriers typically compress the analog speech, and consequently modem tones, to reduce their bandwidth requirements for carrying calls. This compression can alter the modem tones resulting in reduced connection speeds, dropped connections, or no connections. PSTN connection quality is not unique to Iridium data services. The same problem would exist if you made a data call to these locations from your home computer.

Some web pages take too long to download

This is usually caused by images/graphics on web pages. Downloading images will significantly degrade your Internet experience due to their size and lack of compressibility. Remember, your Iridium data connection is not as fast as the landline connections to which you may be accustomed. Try these tips:

- Configure your browser to NOT automatically download images, especially since most images are banners, logos, and advertisements that you probably do not need anyway. See the ***Application Notes*** document for further assistance.

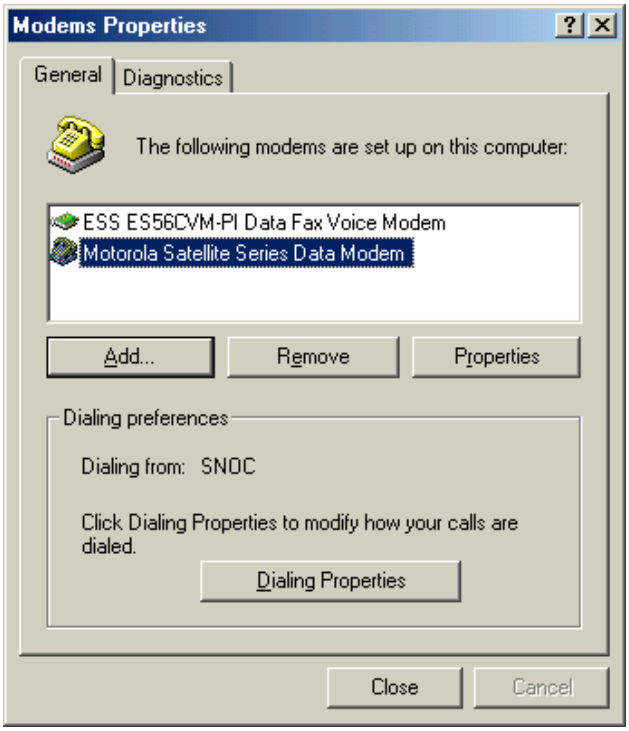
- Browse the Internet via common, fast-loading web portals such as www.yahoo.com or www.lycos.com.

How do I check to see that modem properties are set to the correct values (Windows 95/98/Me/NT)?

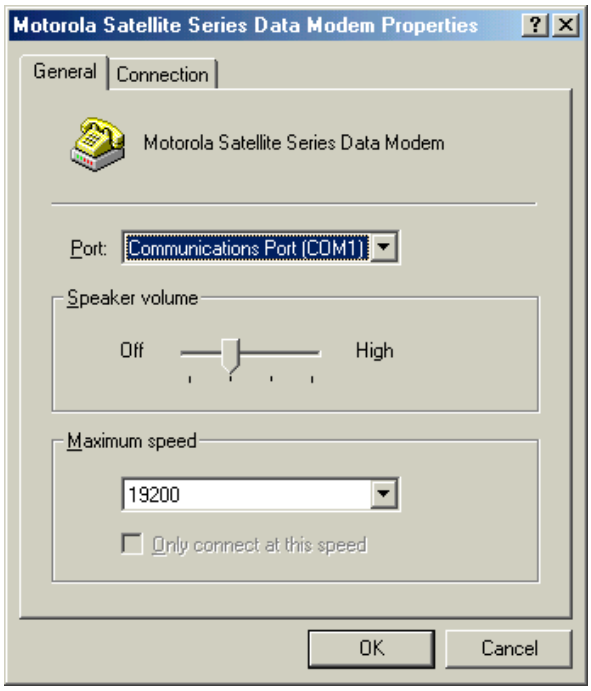
The steps to verify your modem properties are the same for Windows 95, Windows 98, Windows Me and Windows NT. However, some of the windows shown in the following steps may vary slightly different between the different operating systems.

1. Choose *Start* > *Settings* > *Control Panel* to open the Control Panel window.

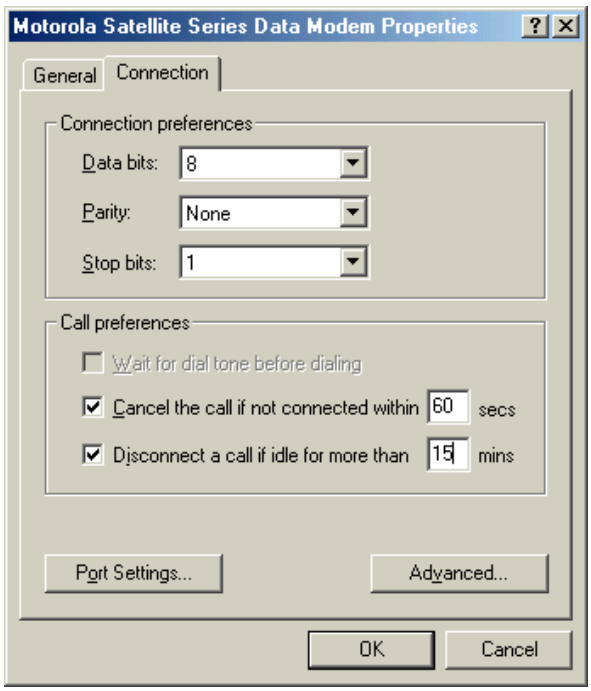
2. Double click on *Modems* to open the Modems Properties window, and you will see all the modems available on your computer. Select the Motorola Satellite Series Data Modem to highlight it and click *Properties*.



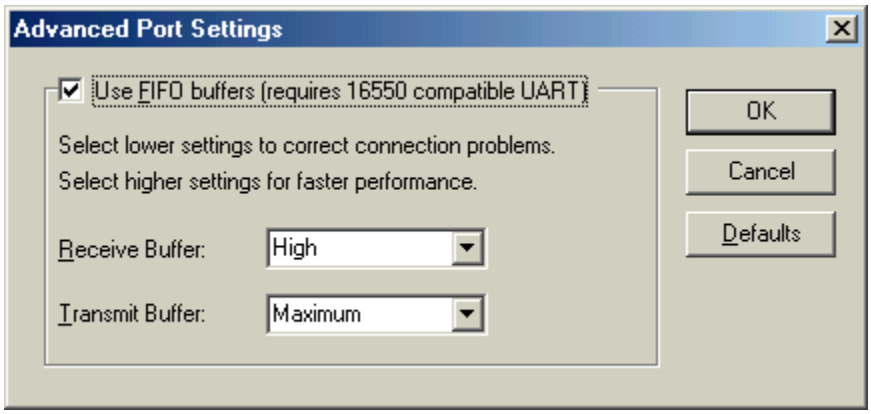
3. Select the General tab and verify the settings with the below figure. The Port (COM1 in this case) should identify the port to which you are connecting your Iridium phone via the serial cable. The *Maximum speed* should be set to 19200.



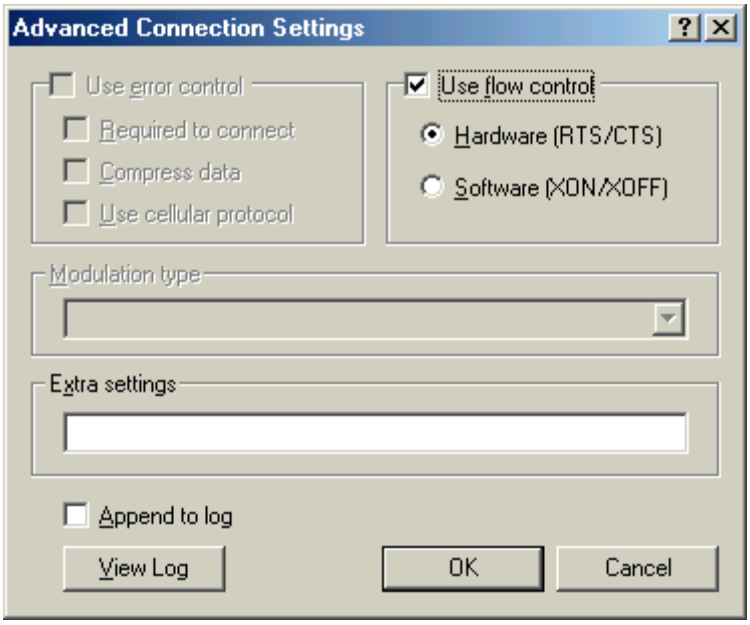
4. Select the Connection tab and verify the settings with the below figure. Please note that the disconnect time of 15 minutes is just a suggestion, and that this will not affect connectivity or performance. This will disconnect your connection if there is no traffic and is useful if you forget that you are connected.



5. Select *Port Settings* and verify the settings with the below figure. You may have to lower the *Receive Buffer* and *Transmit Buffer* settings if you experience problems communicating with your handset. Click *OK*.



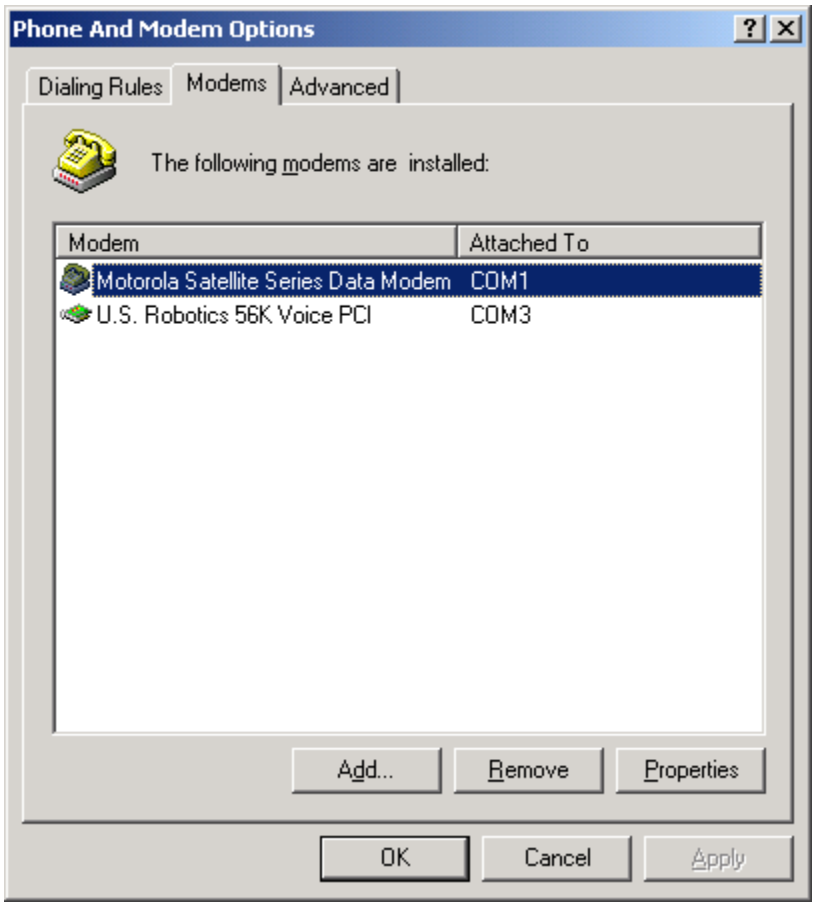
6. Select *Advanced…* and verify the settings with the figure below. Click *OK* and close all open windows.



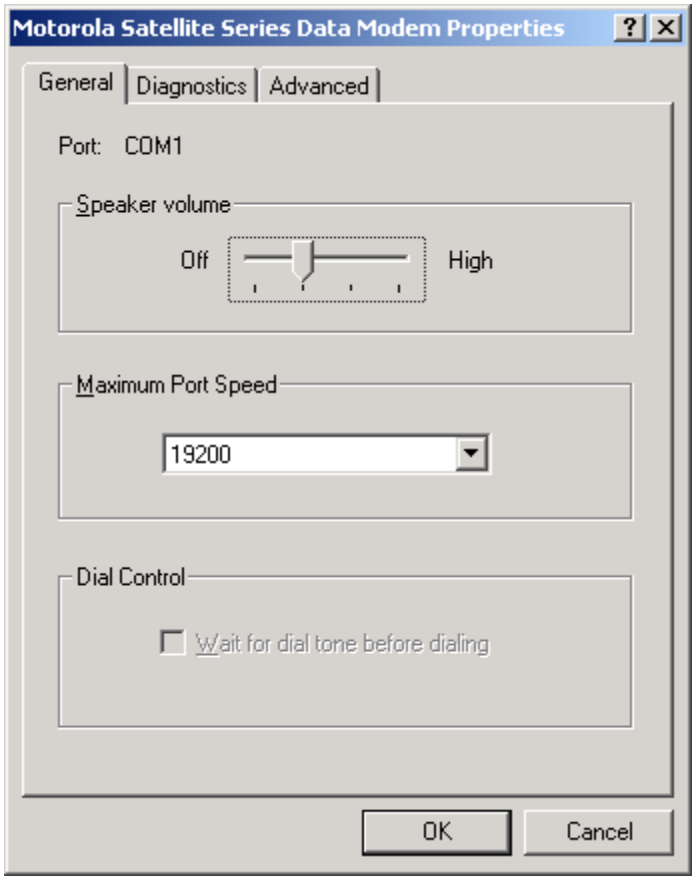
How do I check to see that modem properties are set to the correct values (Windows 2000/XP)?

1. Windows 2000: Choose *Start* > *Settings* > *Control Panel* to open the Control Panel window.
   Windows XP: Choose *Start* > *Control Panel* to open the Control Panel window.

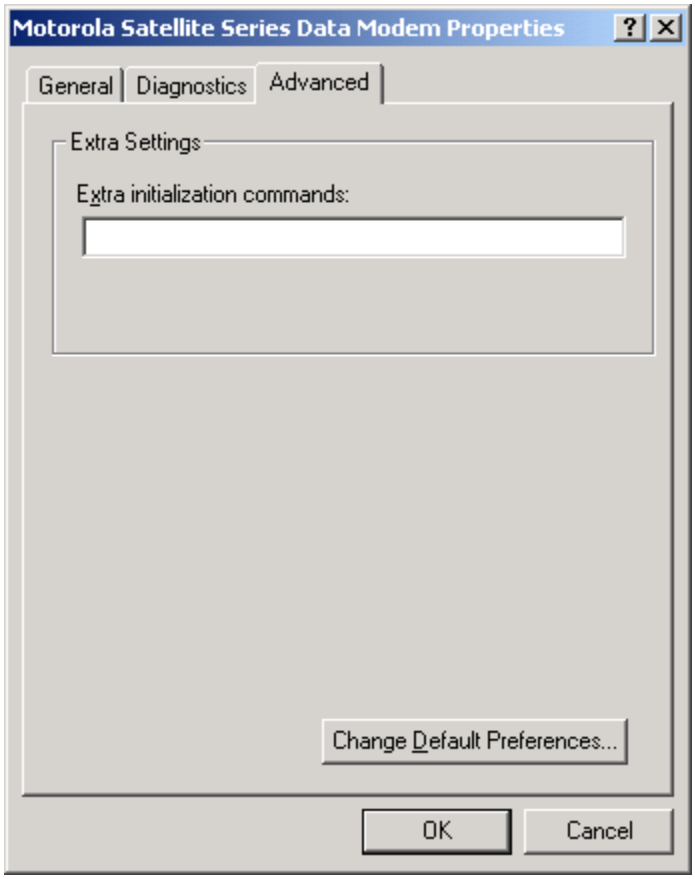
2. Double click on *Phone and Modem Options* to open the Phone and Modem Options window. By selecting the Modems tab, you will see all the modems available on your computer. Select the Motorola Satellite Series Data Modem to highlight it and click *Properties*.



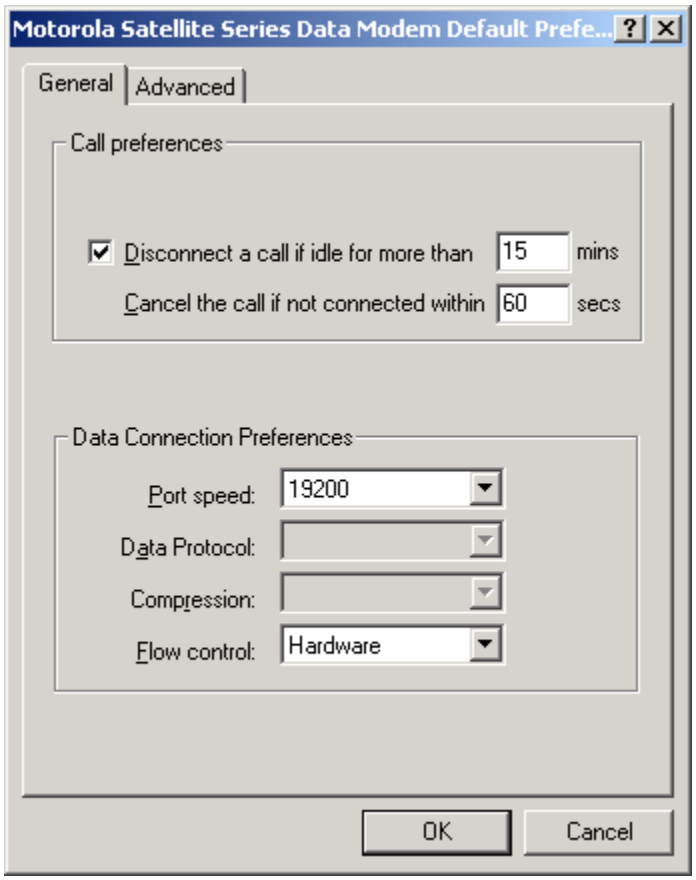
3. Select the *General* tab (Windows 2000) or the *Modem* tab (Windows XP) and verify the settings with the figure below. The Port (COM1 in this case) should identify the port to which you are connecting your Iridium phone via the serial cable. The *Maximum Port Speed* should be set to 19200.



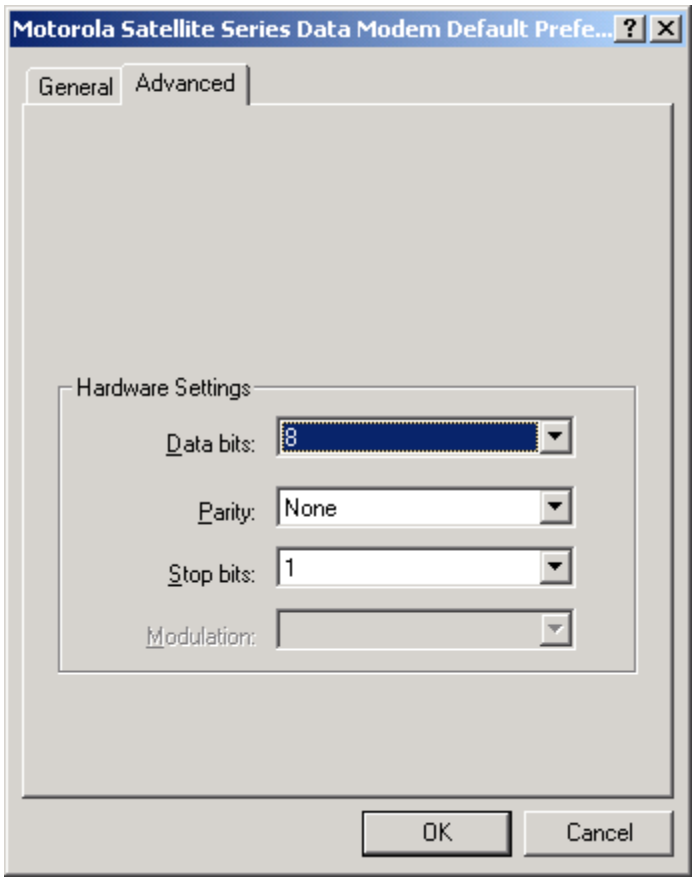
4. Select the *Advanced* tab and verify the settings with the figure below.



5. Click *Change Default Preferences…* to open the Default Preferences window. Select the *General* tab and verify the settings with the figure below. Please note that the disconnect time of 15 minutes is just a suggestion, and that this will not affect connectivity or performance. This will disconnect your connection if there is no traffic and is useful if you forget that you are connected.



6. In the Default Preferences window, select the *Advanced* tab and verify the settings with the figure below. Click *OK* and close all open windows.



Trademark Notice

Iridium and the Iridium logo are registered trademarks and/or service marks of Iridium Satellite LLC.

Windows, Windows 95, Windows 98, Windows Me, Windows NT, Windows 2000, Windows XP, Dial-Up Networking, Outlook, Outlook Express and Internet Explorer are registered trademarks of Microsoft Corporation.

Netscape, Netscape Navigator and Netscape Messenger are registered trademarks of Netscape Communications Corporation.

Apollo Emulator and Smart Connect are registered trademarks of Brand Communications Ltd.

Motorola and Satellite Series are registered trademarks of Motorola, Inc.